



MS PCT  
PATENT  
2114-0114PUS1

## IN THE U.S. PATENT AND TRADEMARK OFFICE

APPLICANT: Tetsuyuki NAKAYASHIKI et al.

INTERNATIONAL APPL. NO.: PCT/JP2003/012226

APPL. NO.: 10/529,015

CONF.:

FILED: March 24, 2005

FOR: NOVEL AROMATIC SULFONIUM SALT COMPOUND, PHOTO-ACID GENERATOR COMPRISING THE SAME AND PHOTOPOLYMERIZABLE COMPOSITION CONTAINING THE SAME, RESIN COMPOSITION FOR OPTICAL THREE-DIMENSIONAL SHAPING, AND METHOD OF OPTICALLY FORMING THREE DIMENSIONAL SHAPE

LETTER SUBMITTING ADDITIONAL DOCUMENTS FOR  
ENTERING NATIONAL PHASE FOR A PCT APPLICATION

**MS PCT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

May 13, 2005

Sir:

Under the provisions of 37 C.F.R. § 1.494 or 37 C.F.R. § 1.495, attached hereto are the following additional items necessary for entering the national phase in connection with the above-identified PCT international application.

**DOCUMENTATION**

- Executed Declaration and Power of Attorney
  - Original       Photocopy
- The specification attached to the executed Declaration and Power of Attorney is a true copy of the specification that

was filed in the U.S. Patent and Trademark Office on March 24, 2005, including any amendments thereto (if applicable) filed on even date therewith.

- The undersigned hereby declares that "Attorney Docket No. 2114-0114PUS1" on page 1 of the attached inventors' Declaration corresponds to Appl. No. 10/529,015 filed March 24, 2005 entitled "NOVEL AROMATIC SULFONIUM SALT COMPOUND, PHOTOCARBOXY ACID GENERATOR COMPRISING THE SAME AND PHOTOPOLYMERIZABLE COMPOSITION CONTAINING THE SAME, RESIN COMPOSITION FOR OPTICAL THREE-DIMENSIONAL SHAPING, AND METHOD OF OPTICALLY FORMING THREE DIMENSIONAL SHAPE."
- Attached is a copy of the Notification of Missing Requirements (371 Formalities Letter).
- Attached is an English language translation of the above-identified application that was filed in a foreign language, which should be used as the copy for examination purposes.
  - See the attached Translator's Verification; or
  - The undersigned states that the English translation attached hereto is a true and correct translation of the application as originally filed in a foreign language.
- Attached are three (3) sheet(s) of drawings. Please substitute these corrected drawings for the corresponding three (3) sheets of drawings on file in the above-identified application.
- Attached are substitute claims commencing on a separate sheet in accordance with 37 C.F.R. § 1.75(h).
- Attached is a substitute abstract commencing on a separate sheet in accordance with 37 C.F.R. § 1.72(b).
- Attached is a substitute specification that complies with 37 C.F.R. § 1.52. The substitute specification does not contain new matter.

Applicant claims small entity status under 37 C.F.R. § 1.27.

Submitted concurrently herewith **under separate cover** for recording is an Assignment.

### FEES

The Government Filing Surcharge for late filing of oath and/or declaration in the amount of \$130.00 in accordance with 37 C.F.R. §§ 1.494 and 1.492 was previously paid for concurrently with the filing of the application on March 24, 2005.

The Government Filing Surcharge for late filing of the English translation in the amount of \$130.00 in accordance with 37 C.F.R. § 1.492 was previously paid for concurrently with the filing of the application on March 24, 2005.

Application Size Fee in the amount of \$0.00, calculated as follows: *(for submission of Translation of Specification or Substitute Specification and Drawings)*

			LARGE ENTITY	SMALL ENTITY
SHEETS OF SPEC & DWG	-100 =	0	0 x 250 =	0 x 125 = \$0

Additional claim fee(s) under 37 C.F.R. § 1.16(b)-(d) in the amount of \$0.00; which have been calculated as follows:

CURRENT NUMBER OF CLAIMS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATES	ADDITIONAL FEE
TOTAL	-	20	\$50 (large)	\$0.00
INDEPENDENT	-	3	\$200 (large)	\$0.00
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				\$360 (large)
				<b>TOTAL</b> \$0.00

No extension fee is required because the undersigned has not yet received the Notification of Missing Requirements (Formalities Letter). However, if for some reason it is determined that an extension of time is necessary, applicant hereby respectfully petitions for an extension of time for the filing of the present paper in accordance with the provisions of 37 C.F.R. § 1.136 and 37 C.F.R. § 1.17.

Applicant(s) hereby respectfully petitions for ( ) month(s) extension of time for the filing of the present paper in accordance with the provisions of 37 C.F.R. § 1.136 and 37 C.F.R. § 1.17. The required fee of \$0.00 is attached hereto.

Check(s) in the amount of \$0.00 to cover the above-mentioned fees is/are enclosed.

Please charge Deposit Account No. 02-2448 in the amount of \$0.00. A triplicate copy of this transmittal form is enclosed.

No fee(s) required.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fee required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By MaryAnne Armstrong, #40,069

P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000

MAA/csm  
2114-0114PUS1

Attachment(s)

12/08/04)



MS AMENDMENT  
PATENT  
2114-0114PUS1

## IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: NAKAYASHIKI, Tetsuyuki et al. Conf.:

Appl. No.: 10/529,015 Group: Unassigned

Filed: March 24, 2005 Examiner: Unassigned

For: NOVEL ATOMATICSULFONIUM SALT COMPOUND,  
PHOTO-ACID GENERATOR COMPRISING THE SAME AND  
PHOTOPOLYMERIZABLE COMPOSITION CONTAINING  
THE SAME, RESIN COMPOSITION FOR OPTICAL  
THREE-DIMENSIONAL SHAPING, AND METHOD OF  
OPTICALLY FORMING THREE-DIMENSIONAL SHAPE

05/20/2005 MKAYPAGH 00000089 10529015 LARGE ENTITY TRANSMITTAL FORM

01 FC:1615 150.00 OP

**MS AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

May 13, 2005

Sir:

Transmitted herewith is a Preliminary Amendment in the above-identified application.

- The enclosed document is being transmitted via the Certificate of Mailing provisions of 37 C.F.R. § 1.8.
- The enclosed document is being transmitted via facsimile.

The fee has been calculated as shown below:

	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR			PRESENT EXTRA	RATE	ADDITIONAL FEE
TOTAL	23	-	20	=	3	\$50	\$150.00
INDEPENDENT	1	-	3	=	0	\$200	\$0.00
<input type="checkbox"/> FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM						\$360	\$0.00
						TOTAL	150.00

- Petition for ( ) month(s) extension of time pursuant to 37 C.F.R. §§ 1.17 and 1.136(a). \$0.00 for the extension of time.
- No fee is required.
- Check in the amount of 150.00 is enclosed.
- Please charge Deposit Account No. 02-2448 in the amount of \$0.00. This form is submitted in triplicate.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By Mary  
MaryAnne Armstrong, #40,069

MAA:bmp  
2114-0114PUS1

P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000

Attachment(s)

Rec'd PCT/PTO 13 MAY 2005  
#3



## VERIFICATION OF TRANSLATION

I, Ichiro HONDA

of No.201 Kanda Chuo Building 2F, 5-7, Nishikanda 2-Chome, Chiyoda-ku, Tokyo  
101-0065 Japan

declare as follows:

1. That I am well acquainted with both the English and Japanese languages, and
2. That the attached document is a true and correct translation made by me to the best of my knowledge and belief of: -

April 19, 2005

A handwritten signature in black ink, appearing to read "Ichiro Honda".

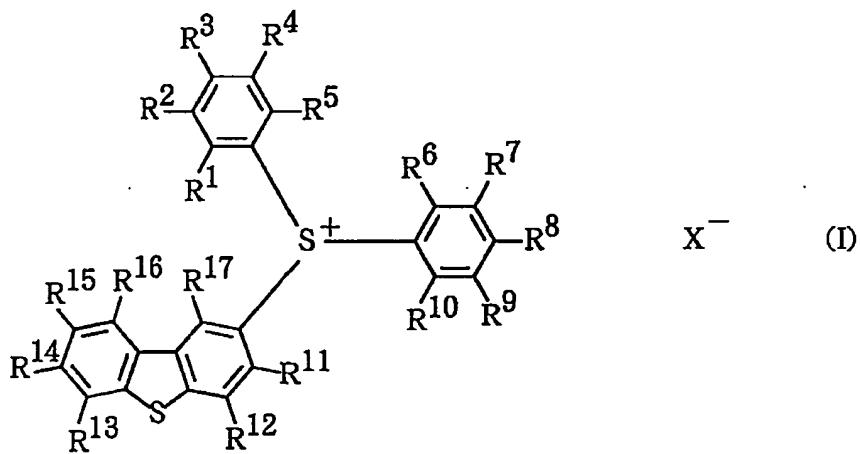
(Signature of Translator)

(No witness required)

**Article 19 Amendment**

The original Claims 2-23 remain pending in the International Application and are unchanged. The original claim 1 is changed as follows:

1. (Amended) An aromatic sulfonium salt compound expressed by a general formula (I),



wherein, R<sup>1</sup> to R<sup>17</sup> are identical or different, respectively a group selected from the group consisting of hydrogen, halogen, nitro, hydroxyl, alkyl, alkoxy, acyl, phenoxy, ester, aryl, thioether, thiocarbonyl, sulfinyl, sulfonyl, amino, amide, imide, nitrile, phosphino, phosphonio, phosphoryl and fluoroalkyl groups of 1-8 carbon atoms, provided that R<sup>1</sup> to R<sup>17</sup> are not all hydrogen at the same time, the moieties other than the functional groups of these

groups can be saturated aliphatic hydrocarbon, unsaturated aliphatic hydrocarbon, alicyclic hydrocarbon, carbocyclic aromatic hydrocarbon or heterocyclic aromatic hydrocarbon of 1-12 carbon atoms, and R<sup>5</sup> and R<sup>6</sup> can be condensed together with to form a covalent bond.